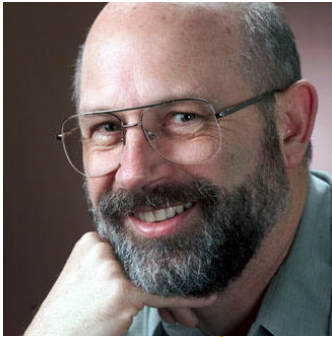


**“What’s a Ceiling?”** by Dougal Maclise**Dougal Maclise**

is currently the manager of the Integrated Systems Health Management Systems Engineering Team at Ames Research Center. He has managed a wide variety of projects from a high-resolution digital imaging payload on the Pathfinder solar-powered aircraft to the consolidation of five different chargeback databases into one common database. He was also the co-manager for the database consolidation project, Consolidated Chargeback Systems, that combined seven legacy, business-tracking databases into one.

After I graduated from college, I worked for two years with the Portland Public Schools as an equipment designer for handicapped children. One of the boys I worked with was named Bobby Smith. Blind since birth, Bobby was about to start attending a new school. In Portland at that time, most of the students with disabilities were being integrated into the regular schools. My task was to help the District’s Mobility Expert, Mr. Thompson, teach Bobby how to get to and from school and around the school grounds on his own.

We started out by meeting Bobby and his mother at their house. It was a small, older house on the east side of Portland on a quiet street about four blocks from the school. The route Bobby would have to learn to negotiate was straight-forward and looked fairly safe to me. I saw that the sidewalks were well kept and clear, the intersections were regulated by stop signs, and traffic on the streets was pretty light. I told Mr. Thompson that this seemed like it would be relatively easy to teach the route to Bobby, and he should be getting along on his own pretty quickly. Mr. Thompson just smiled.

Mrs. Smith greeted us at the door and took us into the kitchen to meet Bobby, who was just finishing his morning snack. Bobby got up from the table and walked up to his mother as we all said hello. Mrs. Smith put her arm around Bobby and walked with him into the living room so we could sit down and talk. As Mr. Thompson mapped out his strategy and schedule for working with Bobby, I sat back and observed.

Bobby behaved much like most blind kids that I’d seen. He listened a while, weaving his head around and sitting close to his mom on the couch. Soon he became bored and started to reach for things to play with. He first played with a throw pillow, feeling the textures and edges. Then he reached towards the coffee table to find something else to play with. His mom gently reached over, found his hands and held them in her own in her lap. After awhile he began to play with the edge of her sweater and then went back to the throw pillow.

**“Bobby said, ‘What’s a ceiling?’ Mrs. Smith said from the doorway, ‘I guess we never talked about it, so he doesn’t know what it is.’”**

Mr. Thompson began to ask Bobby some questions. He asked if he knew who his teacher would be and if he was excited about school. Bobby was very excited about school, but didn't know the name of his teacher.

Next, Mr. Thompson asked Bobby to walk over to him. He got up and walked around the coffee table and over to the chairs where we were sitting. Then, we asked him to go to the kitchen and back. He went to the kitchen table, turned around and came right back. While he was doing this Mrs. Smith had gotten up and walked over to the doorway to watch him.

Mr. Thompson asked Bobby to stand in front of him and asked him to point to the door. Bobby turned and pointed to the front door of the house. He then asked him to point to the doorway to the kitchen. After some hesitation, Bobby pointed towards the kitchen, but a little to the left of the doorway.

"Where is the wall?"

Bobby pointed towards and above the couch.

"And how about the ceiling?"

Bobby said, "What's a ceiling?"

That hit me. Bobby's pointing had been skewed and not what I would have expected from a sighted child, but surely he knew what a ceiling was. Mrs. Smith said from the doorway, "I guess we never talked about it, so he doesn't know what it is."

Mr. Thompson then asked Bobby to run to his room and back. "We don't allow running in the house," said Mrs. Smith.

"Where can he run?"

"In the back yard, on the lawn," she said.

"Anywhere else?"

"Sometimes we run together at the park, but usually we play on the swings."

"How about the slide?"

"I like the slide!" Bobby piped up.

"I help him," said his mother.

"Where does Bobby play on his own?" I asked.

"Usually in his room or in the kitchen if I'm there cooking."

"I heard you say it was against the rules, but does he ever run in the house?"

"No, it's just too risky."

"We'll have to change that," said Mr. Thompson.

The next few months we all worked with Bobby to help him explore his world. Being fairly tall, I was called upon to lift him up to the higher places like the ceiling and the rain gutters. Mrs. Smith started to let him take greater risks, but she wanted to pad all the doorways. She soon found that that was not really needed because Bobby was a cautious explorer.

It was hard to get Bobby to let go of our hand when we started to explore outside and to rehearse the route to his school. He had his cane to help "look" in front of him, but he still wanted to be in contact with a guide, usually someone with him, or a wall or fence. We managed to get him to a point where he could

make it all the way around the block without holding onto someone or trailing his hand along the fences or hedges.

Crossing the street was another thing. Mr. Thompson taught him to listen for the cars and to raise his cane so the drivers could see that he was blind. We'd practice by having one of us cross with him while the other drove up in our car. He became very adept at letting us know when we could cross, but he just would not let go of his guide and cross on his own.

Bobby was already going to school while we were working with him. His mom guided him to and from or just drove him to the front drop-off. He could make it from there to the school entrance, but he was very tentative. Inside the school, he always went down the halls trailing a hand along one of the walls until he found his classroom.

During recess he played on the jungle gym, the swings or the slide, but he was not running around with the other kids. He tried to play tag, but wouldn't stray very far from the walls or the fences. He was developing some new friends, though.

One day I had an idea. I found a stuffed ball and a beeper. Putting the beeper in the ball and closing it up with Velcro, I had a toy that Bobby could use to play with his friends. It would occupy both his hands so he would have to let go of his 'guide' to be able to play, and it was soft enough that he wouldn't be hurt by it. I hoped that play would accomplish what we had not been able to do up to this point, to get Bobby to venture away from his known guides.

Bobby was thrilled! He and his mom played with the ball for much longer than she wanted in their back yard. The next day, he took it to school to show to his class. That afternoon Bobby returned home with a slight black eye.

Apparently, when he was playing with one of his friends, he dropped his ball when a friend had tossed it to him. They both ran to get it and bumped heads. As Mrs. Smith was tending to his eye, she couldn't help but notice his excitement as he told her all the details of the incident.

**"I wonder how to tell the Mrs. Smiths elsewhere that a few black eyes won't kill the patient."**

She asked him, "Didn't it hurt?"

He said, "I guess so, but, Mom, I ran! I ran right into Chris! And then we started laughing. He says we can play soccer now! Can I? Is that okay? Please?"

"I guess we'll have to find a way, won't we."

And they did. Bobby played soccer, and he played other sports too.

Mrs. Smith had to let go of her own anxiety, and to her credit she did. So did other parents whose children, whether blind or disabled in some way, were integrated into playtime at the school. You could see at first they were scared to let their children go, but they helped each other to accept the risks of letting go, and eventually they shared in the joy their children felt.

**"I hoped that play would accomplish what we had not been able to do up to this point, to get Bobby to venture away from his known guides."**

### Epilogue

I often think about this episode as I manage projects. The main part of the job seems to be managing the risks, weighing the safe choice against the more risky one. Whenever I think of the new worlds of doorways, ceilings and soccer that Bobby found by taking more risks, I wonder what I might find if I take, or allow my team, to take more risks. On the other hand, I also wonder how to tell the Mrs. Smiths elsewhere that a few black eyes won't kill the patient.

APPL  
ASK

### LESSON

Overprotecting the weak often serves to protect only the protector. Ideally, protection enables the weak to develop gradually by increasing their exposure to risk.

### QUESTION

Do you have your own example or metaphor that shows how “zero failure equals zero progress”?